

# XC-400

## PROFESSIONAL SERIES POWER AMPLIFIER

### GENERAL DESCRIPTION

Our market research continues to indicate strong demand for a professional power amplifier mounted in a rugged roadworthy enclosure. Many performers and groups need the professional performance offered by most rack mounted power amps but would prefer the convenience and ruggedness of a totally packaged unit as opposed to the awkward and oftentimes delicate units designed only for rack mounting. Our new XC-400 utilizes circuitry very similar in design to our popular and well-respected CS-400 and CS-800. This versatile new unit has been designed using the latest integrated and discrete semiconductor devices.

This newly engineered 300 watt RMS (2 ohms) power amplifier features our exclusive DDT® ("Distortion Detection Technique") compression circuitry that electronically senses the onset of clipping and automatically activates the compression circuit to minimize distortion in the power amp. The use of this DDT® compression circuit effectively increases the apparent headroom available thus utilizing every precious watt of power available and allows the XC-400 to quite effectively compete with units having considerably more RMS power.

Eight high voltage "power base" output devices are bolted to a massive aluminum heatsink for continuous operation under rugged field conditions. The XC-400 features transformer balanced and unbalanced inputs with a unique capability to enable "patching through" the XC-400 to other devices in the system. An extremely wide dynamic range capability enables the input of the XC-400 to accept signal levels greater than 30 volts (speaker levels). A ten-segment LED VU display provides an accurate and instantaneous visual indication of the output power. The XC-400's circuitry is protected at both the input and output against high voltage transients, short circuits, etc. and its technical performance is comparable to most "professional amplifiers" whether they be in a rack mountable or any other type of package.

The XC-400's performance, DDT® compression circuitry, dependability, rugged package, balanced inputs and patch panel make it an exceptional choice for upgrading present systems or powering sound reinforcement or musical instrument systems.

## SPECS

### RATED POWER:

210 watts RMS into 4 ohms  
300 watts RMS into 2 ohms

### POWER @ CLIPPING:

(1% THD, 1 kHz, 120 VAC line)  
Typically:  
130 watts RMS into 8 ohms  
225 watts RMS into 4 ohms  
320 watts RMS into 2 ohms

### FREQUENCY RESPONSE:

+0/-1 dB, 10 Hz to 30 kHz, 200 W RMS into 4 ohms

### TOTAL HARMONIC DISTORTION:

Less than 0.1%, 200 mW to 200 W RMS, 20 Hz - 10 kHz,  
4 ohms, typically below .05%

### INTERMODULATION DISTORTION:

Less than 0.1%, 200 mW to 200 W RMS, 60 Hz & 5 kHz,  
4 ohms, typically below .05%

### HUM AND NOISE:

Greater than 90 dB below full power

### SLEW RATE:

Greater than 15 volts per micro-second

### LOAD IMPEDANCE:

4 ohms or greater (stable into any load configuration)

### DAMPING FACTOR:

Greater than 100 @ 1 kHz, 4 ohms

### INPUT SENSITIVITY:

1 V RMS for 200 W into 4 ohms

### INPUT IMPEDANCE:

50K ohms (High impedance bridging inputs)  
2.7K ohms (Low impedance bridging inputs)

### INPUT DYNAMIC RANGE:

Greater than 30 V RMS (Will accept speaker levels)

### LOAD PROTECTION:

Short, mismatch, open-circuit proof. Voltage/current limiting instantaneous with no thumps or cut-off

### DDT® COMPRESSION SYSTEM

### DYNAMIC RANGE:

Greater than 26 dB

### MAXIMUM DISTORTION:

Less than 0.5% THD for 6 dB overload @ 1 kHz  
Less than 1.0% THD for 20 dB overload @ 1 kHz

### LED POWER DISPLAY:

30 dB Range @ 3 dB steps



**WARNING**  
**TO PREVENT ELECTRICAL SHOCK OR**  
**FIRE HAZARD, DO NOT EXPOSE THIS**  
**APPLIANCE TO RAIN OR MOISTURE.**

# FEATURES

## TRANSFORMER BALANCED LOW IMPEDANCE INPUTS

For ultra-quiet operation in the most demanding professional situations. Balancing inputs eliminate radio frequency and light dimmer system noise, especially when long cable runs are necessary.

## HIGH IMPEDANCE UNBALANCED INPUTS

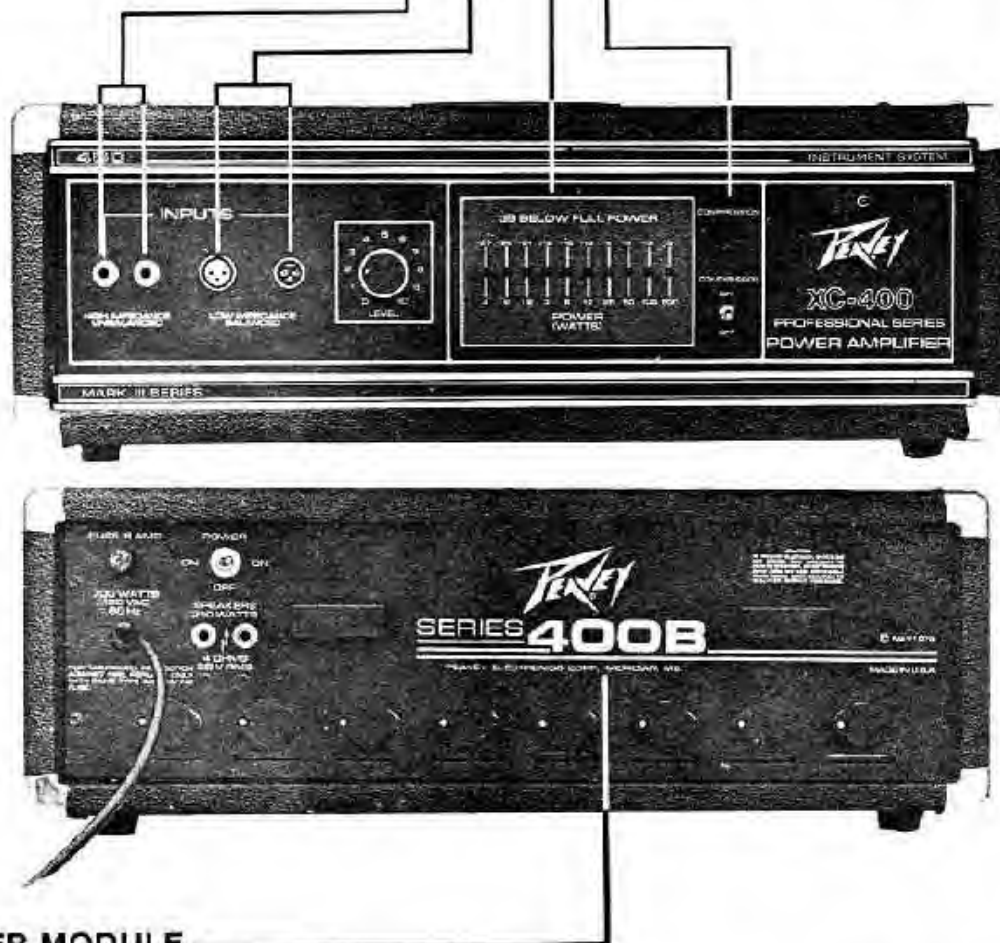
High impedance inputs with standard 1/4" phone jacks are included for convenience when balanced hookups are inconvenient or unnecessary.

## LED OUTPUT LEVEL INDICATOR

Much more accurate than conventional VU meters because there are no moving parts so that even the fastest transients are displayed. Features a full 30 dB range in 3 dB steps.

## COMPRESSOR

Our exclusive DDT® (Distortion Detection Technique) allows absolute maximum dynamic range available from the power amplifier and virtual elimination of power amplifier clipping.



## NEW POWER MODULE

A new 400 power module now gives 300 watts RMS performance into 2 ohms and 210 watts RMS into 4 ohms.

Due to our efforts for constant improvement, features and specifications listed herein are subject to change without notice.



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